



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/555,447

11/03/2005

Akiko Fujino

043888-0411

4156

53080 7590 02/05/2008
MCDERMOTT WILL & EMERY LLP
600 13TH STREET, NW
WASHINGTON, DC 20005-3096

EXAMINER

WANG, EUGENIA

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

02/05/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/555,447

Applicant(s)

FUJINO ET AL.

Examiner

EUGENIA WANG

Art Unit

1795

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 25 January 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____.
13. ☐ Other: _____.

GREGG CANTELMO
PRIMARY EXAMINER



Continuation of 11. does NOT place the application in condition for allowance because: Applicant argues that it would not be obvious to one of ordinary skill in the art to replace polyethylene with non-woven cloth, since the combination of a porous film and non-woven fabric yields unexpected results. Applicant then goes on to cited several of examples and comparative examples.

Examiner respectfully disagrees.

With respect to "the ordinary skill of one in the art": As stated in the final rejection. Fujiwara et al. (US 6576366) et al. teaches that porous films (polyethylene, as used in Yamashita et al.) and non-woven clothes are both known as separator materials (col. 9, lines 27-38). Examiner is unsure as to how one of ordinary skill in the art would not have been able to replace one known separator material for another known separator material with the expectation that it would function as a separator.

With respect to the "unexpected results": Examiner would like to point out that Applicant in the Background Art recognizes that microporous films are used in separators, but they have a low porosity and do not retain electrolyte as well, which leads to low capacity (para 0004). Additionally, Applicant's also note that non-woven fabric retain electrolyte better at retaining electrolyte but has poor mechanical strength, thus resulting in a shorter cycle life (para 0006). Notably, short-circuiting (function of poor mechanical strength) is not a problem for the porous separators. Therefore, one of ordinary skill in the art would have recognized both the advantages and disadvantages of using porous films and nonwoven fabrics. Accordingly, by using layers of both, one of ordinary skill in the art would have expected the predictable result of obtaining the advantages of both the non-woven fabric and porous film by layering them. Therefore replacing the polyethylene film in Yamashita et al. with that of a non-woven cloth would not have yielded unexpected results. Contrary to that, one of ordinary skill in the art would have expected the capacity to be better than that of just a porous film separator, as Applicant's admitted prior art states that one of ordinary skill in the art would have known that using nonwoven cloths in the separator would have improved capacity. Therefore, Examiner is unsure as to how the results obtained by the instant application yield unexpected results, since advantages and disadvantages of the materials in question were known. Therefore, it is maintained that the results of replacing the polyethylene film in Yamashita with a nonporous film would not have been unexpected and would instead have been predictable to one of ordinary skill in the art..